

Serial No. 10/748,531
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AMENDMENTS TO THE SPECIFICATION:

Please replace the following numbered paragraphs with the following rewritten paragraphs:

- [19] Air entering the fan section 11 is divided between core gas flow 20 and bypass air flow 22. The core gas flow 20 generally follows a path essentially parallel to the axis A of the engine 10, through the compressor section 12, combustor 14, turbine section 16, and augmentor section 18. Bypass air 22 also follows a path parallel to the axis 26 of the engine 10, passing through an annulus 28 along the periphery of the engine 10.
- [20] Core gas flow 20 follows a path initially passing through the compressor section 12 and subsequently through the combustor 14 and turbine section 16. The core gas flow 20 passes through the augmentor section 18 where fuel is selectively added, mixed with the flow 20 and burned to impart more energy to the flow 20 and consequently more thrust exiting the nozzle 24 of the engine 10.
- [21] Referring to Figure 2, an end view of the augmentor section 18 is illustrated as viewed from the rear of the engine 10. The augmentor section 18 includes a central cone 30, a case 32 having an inner lining 34, an outer wall 36, and a plurality of circumferentially disposed vanes 38 extending radially outward from the cone 30 to the inner lining 34.
- [23] In operation, when the augmentor section 18 is actuated, fuel is admitted into a fuel distribution system within each of the vanes 38 and exits the multiple of fuel injection orifices 44 to extend out a distance into the core gas flow 20. After distribution from the vanes 38, the fuel mixes with the core gas flow 20 and the bypass air 22 introduced in the core gas flow 20. This mixture is combusted and proceeds downstream to increase the thrust of the engine 10 (Figure 1). For further understanding of other aspects of the augmentor operation, attention is directed to United States Patent No. 5,685,140 METHOD FOR DISTRIBUTING FUEL WITHIN AN AUGMENTOR which is assigned to the assignee of the instant invention and which is hereby incorporated herein in its entirety.

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- [26] Referring to Figure 4, the upstream set of vanes 38a include fuel injection orifices 44a which provide low fuel jet penetration into the air stream. That is, the fuel injection orifices 44a in the first set of vanes exits discharges fuel Fa to extend out a distance from the vane 38a less than the distance fuel Fb exits from fuel orifices 40b defined in the second set of vanes 38b. This pattern enriches fuel in the wake behind the first set of vanes 38a and provides enhanced flame anchoring. The downstream set of vanes 38b preferably include fuel injection orifices 44b which provide fuel jet penetration into the air stream equal to or greater than the first set of vanes 38a. The actual penetration of the fuel jets from the sets of vanes is tailored depending on radial position for optimal augmentor efficiency. This arrangement increases fuel/air mixing in the augmentor section 18, leading to higher combustion efficiency. The flame anchoring characteristics of the downstream set of vanes 38b also provide increased heat input from the flames attached to the upstream vanes 38a.